



GP/1741

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

BRUCE E. GNADE  
ROBERT M. WALLACE

Serial No.: 10/051,970

Filed: January 18, 2002

For: METHOD FOR USING FIELD EMITTER  
ARRAYS IN CHEMICAL AND  
BIOLOGICAL HAZARD MITIGATION  
AND REMEDIATION

Group Art Unit: 1741

Examiner: Unknown

Attorney Docket: 4380.000300/KDG

*AJ*  
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APR 24 2002  
TC 1741  
*C.J.**8/26/02*INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

## CERTIFICATE OF MAILING (37 C.F.R. § 1.8)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington D.C., 20231, on the date below.

April 16, 2002

  
Cynde Meinhart

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO-1449 be considered by the Examiner and made of record. Copies of the listed documents required by 37 C.F.R. § 1.98(a)(2) are enclosed for the convenience of the Examiner.

In accordance with 37 C.F.R. §§ 1.97(g),(h), this Information Disclosure Statement is not to be construed as a representation that a search has been made, and is not to be construed to be

an admission that the information cited is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

The present Information Disclosure Statement is being filed prior to the receipt of a first Official Action reflecting an examination on the merits, and hence is believed to be timely filed in accordance with 37 C.F.R. § 1.97(b). No fees are believed to be due in connection with the filing of this Information Disclosure Statement; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be deemed necessary for any reason relating to these materials, the Assistant Commissioner is hereby authorized to deduct said fees from Williams, Morgan & Amerson, P.C., Deposit Account No. 50-0786/4380.000300KDG.

Applicants respectfully request that the listed documents be made of record in the present case.

Respectfully submitted,



Kenneth D. Goodman  
Reg. No. 30,460

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April 16, 2002

Form PTO-1449 (modified) APR 22 2002  
**U.S. Patent & TRADEMARK OFFICE**  
List of Patents and Publications for Applicant's  
INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

Atty. Docket No. 4380.000300/KDG Serial No. 10/051,970

Applicants  
Bruce E. Gnade/Robert M. Wallace

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U.S. Patent Documents  
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Foreign Patent Documents  
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Other Art  
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### U.S. Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Name	Class	Sub Class	Filing Date of App.
	A1	5,827,102	10/27/1998	Watkins et al.	445	25	05/13/1996
	A2	5,788,551	08/04/1998	Dynka et al.	445	25	07/08/1996
	A3	5,729,086	03/17/1998	Jeong et al.	313	495	02/20/1996
	A4						
	A5						

### Foreign Patent Documents

Exam. Init.	Ref. Des.	Document Number	Date	Country	Class	Sub Class	Translation Yes/No
	B1						
	B2						
	B3						

### Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C1	Swanson, "Field Emission," <i>Encyclopedia of Physics</i> , pages 315-316 (1981)
	C2	Chalamala et al., "Interaction of H <sub>2</sub> O with Active Spindt-Type Molybdenum Field Emitter Arrays," <i>J. Vac. Sci. Technol. B</i> Vol. 17:303-305 (1999)
	C3	Chalamala et al., "Surface Conditioning of Active Molybdenum Field Emission Cathode Arrays with H <sub>2</sub> and Helium," <i>J. Vac. Sci. Technol. B</i> Vol. 16:2855-2858 (1998)
	C4	Chalamala et al., "Poisoning of Spindt-Type Molybdenum Field Emitter Arrays by CO <sub>2</sub> ," <i>J. Vac. Sci. Technol. B</i> Vol. 16:2866-2870 (1998)
	C5	Chalamala et al., "Effect of O <sub>2</sub> on the Electron Emission Characteristics of Active Molybdenum Field Emission Cathode Arrays," <i>J. Vac. Sci. Technol. B</i> Vol. 16:2859-2865 (1998)
	C6	Chalamala et al., "Effect of CH <sub>4</sub> on the Electron Emission Characteristics of Active Molybdenum Field Emitter Arrays," <i>J. Vac. Sci. Technol. B</i> Vol. 16:3073-3076 (1998)

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## U.S. Patent Documents

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## Foreign Patent Documents

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## Other Art

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Other Art (Including Author, Title, Date Pertinent Pages, Etc.)

Exam. Init.	Ref. Des.	Citation
	C7	Wallace et al., "Effects of Residual Gas Exposures on the Emission Characteristics of Field Emission Arrays," <i>AVS National Symposium</i> , Abstract No. FP+VT-MoM3 (October 25, 1999)
	C8	Chalamala, "Field Emission Cathode Arrays: Effect of Various Gases on Device Performance," <i>AVS National Symposium</i> , Abstract No. VT+FP-WeA4 (October 16, 1996)
	C9	Gnade, "4. Description of Research," <i>1999 ARP Proposal</i> (February 4, 2000)
	C10	Gnade et al., "Field Ionization Arrays for Biological and Chemical Warfare Detection and Actuation," <i>MIT UNT Proposal</i> , pages 1-34 (February 4, 2000)
	C11	Wallace et al., "Field Emission Displays and Vacuum Packaging Issues," <i>Flat Panel Display Topical Conference 46<sup>th</sup> AVS International Symposium</i> (1996)
	C12	
	C13	
	C14	
	C15	
	C16	

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